

*Pericosmus roigi* (Lambert) †.

*Agassizia clevei*, Cotteau †.

*Schizaster egozuei*, Lambert, sp. n. §

D'après une récente communication de Mr. Sanchez Roig, il faut ajouter à cette liste : *Brissoiles cubensis*, Cotteau (sub *Breynia*), dépourvu de fasciole périapical et attribué avec doute par son auteur à l'Éocène, mais dont un individu de San Antonio de Cabezas près Matanzas a été recueilli dans le Pliocène. Une autre espèce du Miocène inférieur de La Havanne est un petit échinide subglobuleux appartenant à un genre nouveau de la famille Aeropsidae et qui devra se placer près d'*Ovulaster*.

#### EXPLANATION OF PLATE IX.

Fig. 1. *Metalia batheri*, sp. n., holotype, E. 12952; face supérieure.

Fig. 2. Ditto, holotype; face inférieure.

Fig. 3. Ditto, E. 12961; pores et tubercules du pétale impair; la ligne médiane est à droit; agrandis.

Fig. 4. *Schizaster lozeni*, Cotteau, E. 12965.

Fig. 5. *Lovenia gregoryi*, sp. n., holotype, E. 12951, face postérieure, avec le périprocte dans la moitié supérieure de la dépression.

Fig. 6. Ditto, holotype; face supérieure.

Toutes les figures, sauf fig. 3,  $\times \frac{3}{7}$ .

LXXI.—*Galoneus tridentatus*, sp. n., a new *Ankylostome* living in fibrous Nodules in the Intestine of a Leopard.  
By M. KHALIL ‖.

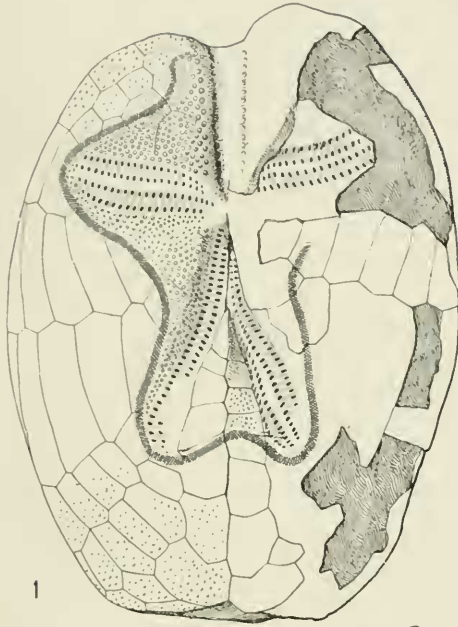
THE material for this study was collected from a leopard that died in the Gardens of the Zoological Society of London. The intestine of the animal was studded with a large number of hard nodules projecting into the lumen of the gut. On

† = "*Hemipatagus hoffmanni*, Goldfuss," of M. S. Roig, 1920, 'Boletim de Minas,' no. 6, p. 5, fig. 24. "*Meoma roigi*," Lambert, 1921, *Revue Critique de Paléozool.*

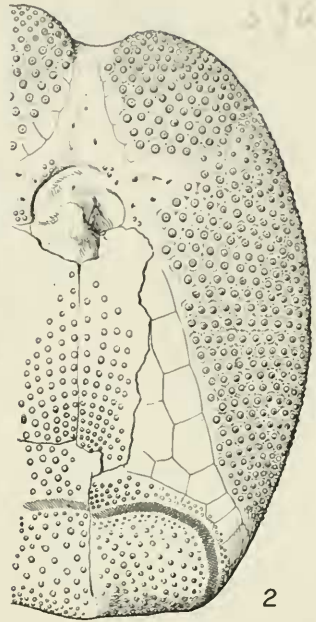
‡ Cotteau a réuni sous ce nom deux espèces: l'une, celle du type miocène, est figurée pl. vi. fig. 2, 8; l'autre, plus grande, de l'Éocène, a son sommet plus gibbeux et ses pétales latéraux plus divergents. Je lui donne le nom d'*Agassizia egozuei*, sp. n.

§ Je donne ce nom au *Schizaster scille*, Cotteau et Egozue [non Desmoulin (*Spatangus*)], figuré par Egozue, *Ann. xxvi.* fig. 4, 5, et qui diffère tant du *S. scille* du Tortonien que des *S. enrymotus*, Agassiz, et *S. parkinsoni*, De-france, du Langhien (*v. supra*, p. 592).

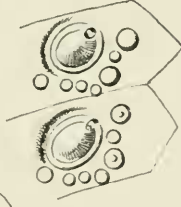
‖ From the Helminthological Department, London School of Tropical Medicine.



1



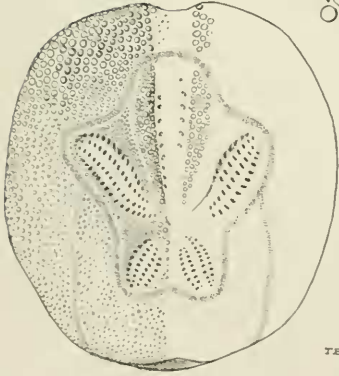
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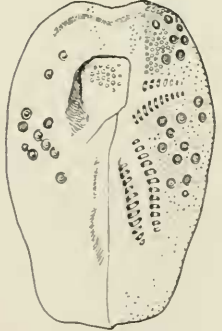
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TERZI

F. A. Bather dir.

Neogene Echinoids from the Island of Anguilla.

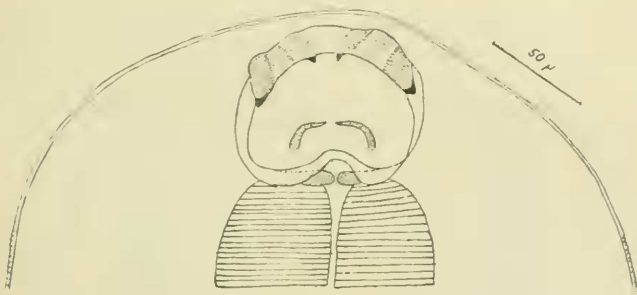


teasing these nodules a nematode was found. It was not possible to secure complete specimens of the worms, owing to the narrow winding tracts. The head end and the bursa of the male were, however, secured, including a specimen showing the whole length of the spicules.

The cuticle is finely striated throughout the length of the body at intervals of 0.002 mm. The outline of the worm is wrinkled in appearance. The maximum diameter of the body is .45 mm., the body tapers very little towards the anterior end; posteriorly the body narrows considerably. Just anterior to the bursa, the diameter of the body is 0.27 mm.

The mouth-capsule is very small in size in comparison with the breadth of the worm at the same level. Its opening looks dorsally and is practically rounded in outline. It is 0.075 mm. in length and 0.1 mm. in breadth. The diameter

Fig. 1.



*Galoncus perniciosus*, von Linstow. Mouth-capsule.

of the body at the posterior margin of the mouth-capsule is 0.26 mm. Three pairs of teeth project from the ventral wall of the mouth-capsule near its outlet. The most lateral teeth are the largest and the two inner teeth are smallest. The latter lie close together on either side of the middle line. Two conical dorsal teeth, one on either side, project freely from the floor of the mouth-capsule. Their apices bend inwards towards each other. These teeth lie on either side of the duct of the dorsal œsophageal gland. Two additional teeth project from the ventral wall of the mouth-capsule close to its floor.

The cavity of the mouth-capsule becomes narrower towards the beginning of the œsophagus (figs. 1 & 2).

There is no distinct œsophageal funnel. The œsophagus

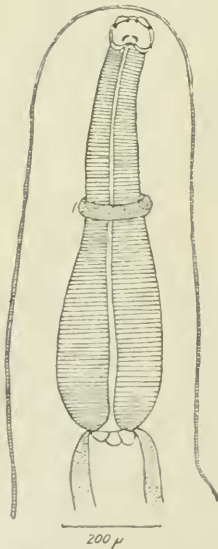
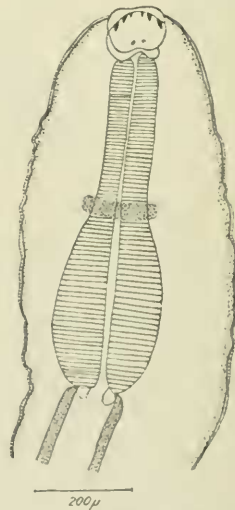
is 0.7 mm. in length and 0.23 mm. in maximum diameter. Its anterior half is narrow and practically cylindrical. Its posterior half is bulbous. At the junction of both parts the nerve-ring surrounds the œsophagus (figs. 3 & 4).

Fig. 2.

*Galoneus tridentatus*, sp. n. Mouth-capsule.

Fig. 3.

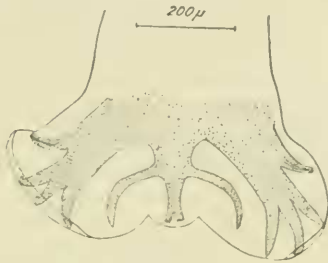
Fig. 4.

*Galoneus perniciosus*, von Linstow.  
Anterior end of body.*Galoneus tridentatus*, sp. n.  
Anterior end of body.

The chyle intestine takes a straight course along the longitudinal axis of the body. Its walls are pigmented, except at its beginning and at its termination.

The nerve-ring surrounds the œsophagus at a distance of 0.4 mm. from the head end.

Fig. 5.



*Galoncus tridentatus*, sp. n. Dorsal view of male bursa.

Fig. 6.



*Galoncus tridentatus*, sp. n. Lateral view of male bursa and spicules.

The male bursa is divided into three lobes. The dorsal lobe is smaller and shorter than the lateral lobes. The

whole bursa is broader than it is long. It is 0.3 mm. in length and 0.5 mm. in breadth. The ventral ray is bifid, and arises separately from the lateral ray. The three branches of the lateral ray diverge widely from each other. The dorso-lateral ray separates at a higher level than the other two rays. The externo-dorsal ray arises in common with the dorsal. It ends a little distance away from the edge of the bursa. The dorsal ray is 0.18 mm. in length. It divides near its termination. Each of its two divisions has a tridigitate end like the serration of a saw (fig. 5).

The genital cone has a blunt apex. It does not protrude freely into the cavity of the bursa.

The two spicules are equal and similar in shape. They are very long and slender, being 1.9 mm. in length. They are curved in part of their course. Their termination is filiform, and apparently the two spicules are united at their tip. There is an accessory piece 0.04 mm. in length (fig. 6).

The posterior end of the female was not secured entire. The tail is short, and the vulva lies in the posterior third of the body. The female is oviparous. The ova are  $72\ \mu$  long and  $45\ \mu$  broad. They are voided in the unicellular stage.

*Habitat.* Submucous nodules in the small and large intestine of *Felis nebulosa* (leopard) from the Malay States.

#### PATHOLOGY.

The lumen of the intestine of the animal contained a large amount of mucus tinged with blood. The mucus surface of the large intestine (especially) was studded with hard nodules, about 1 cm. in diameter, projecting into the lumen. Their surface was covered with a thick layer of mucus. On being scraped the surface of the nodule was found to be smooth, with one or more minute openings at its apex. These were visible on account of the red-colour of the contents oozing from them. The nodules did not project on the serous surface of the intestine to the same extent. On section the hard tumour was found to be traversed with a convoluted canal tinged red with blood. The adult parasites lie along these tracts commonly two in each tumour. Microscopical examination of the contents of these canals revealed eggs and larvæ in different stages of development. Similar larvæ were found in the lumen of the gut. The extravasated blood was in the process of disintegration.

On examination of sections made from these tumours, the mucus membrane covering the tumour was found to be intact, but extremely atrophied, the tumour lying completely in the submucus tissue. The muscular layers of the